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Claims

Claim 1. (Currently Amended) An apparatus for providing a smooth interpolated video signal at [a] any desired rate from a slower rate video signal comprising:

means for up-sampling the slower rate video signal to the desired rate; and
means for adaptively filtering the up-sampled slower rate video signal using a human vision model to produce the smooth interpolated video signal.

Claim 2. (Original) The apparatus as recited in claim 1 further comprising means for restoring a direct current level for the smooth interpolated video signal.

Claim 3. (Currently Amended) An apparatus for providing a smooth interpolated video signal at [a] any desired rate from a slower rate video signal comprising:

a frame converter for up-sampling the slower rate video signal to produce an up-sampled video signal at the desired rate; and
an adaptive filter based on a human vision model for interpolating the up-sampled video signal to produce the smooth interpolated video signal.

Claim 4. (Currently Amended) The apparatus as recited in claim 3 further comprising [an] a direct current restorer having as inputs the smooth interpolated video signal from the adaptive filter and the up-sampled video signal for restoring a direct current level in the smooth interpolated video signal.

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Claim 5. (Currently Amended) A method of providing a smooth interpolated video signal at [a] any desired rate from a slower rate video signal comprising the steps of:

up-sampling the slower rate video signal to the desired rate to produce an up-sampled video signal; and

adaptively filtering the up-sampled video signal according to a human vision model to produce the smooth interpolated video signal.

Claim 6. (Original) The method as recited in claim 5 further comprising the step of restoring a direct current level in the smooth interpolated video signal as a function of the up-sampled video signal.